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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/511,830    02/23/00    HOLBROOK

D    W-3875

EXAMINER

IM22/0126

Rodney K Worrel  
Worrel & Worrel  
St Croix Professional Center  
2109 W Bullard Avenue Suite 121  
Fresno CA 93711-1258

HOEY, B

ART UNIT

PAPER NUMBER

1724  
DATE MAILED:

01/26/01

*4*

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/511,030

Applicant(s)

Holbrook

Examiner

Betsey M. Hoey

Group Art Unit

1724



☒ Responsive to communication(s) filed on Feb 23, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. Claims 12 and 13 are objected to because the claims are identical, and therefore one of these claims must be amended or canceled.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admission (instant specification on page 3, last 6 lines and page 10, first 4 lines). The applicant admits that a known method for treating water containing excess ozone comprises treating the water with sodium bisulfite to quench the ozone.
4. Claims <sup>1-10</sup>~~1-9~~ and <sup>12</sup>~~11~~-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Richey et al. in "Improved Ozone Quenching With Calcium Thiosulfate". Richey et al. teach a method for treating water comprising disinfecting the water with ozone in a treatment system, wherein the system includes an ozone quenching system. In the ozone quenching system, an ozone quenching chemical is added directly to the water as it passes through the treatment system, in an amount to reduce the dissolved ozone concentration to non-detectable levels without reacting with chlorine added downstream to produce by-products. The untreated water provided to the treatment system of Richey et al. would not be potable without the treatment, and therefore may be

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considered as wastewater. Richey et al. teach that calcium thiosulfate has advantages as the ozone quenching chemical.

5. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wickramanayake (column 4, lines 47-52; column 9, lines 56-59). In this method of Wickramanayake, the work material is a gas mixture that has passed through soil; the target constituent is ozone; the treating agent is sodium thiosulfate; and the objective is to quench the ozone.

6. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Daignault et al. (abstract; column 1, lines 11-14). In this method of Daignault et al., the work material is a waste solution such as a waste water stream; the target constituent is heavy metals bound to complexing agents; the treating agent is peroxide and ozone; and the objective is to destroy the complexing agents and facilitate the removal of heavy metals.

7. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hagen et al. (abstract; column 18, lines 47-61). In this method of Hagen et al., the work material is a fluid; the target constituent is an oxidant such as ozone; the treating agent is oxidant scavenger particulates which may be sodium thiosulfate particulates; and the objective is to remove the oxidant.

8. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Horn et al. (abstract). In this method of Horn et al., the work material is photoprocessing wash water; the target constituent is silver thiosulfate complex; the treating material is acrylic anion exchange; and the objective is to remove the silver thiosulfate complex.

9. Claim <sup>11</sup>~~10~~ is rejected under 35 U.S.C. 103(a) as being unpatentable over Richey et al.

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Richey et al. disclose the method described above. The claim differs from Richey et al. by reciting a specific rate of calcium thiosulfate application to the water. It is submitted that one of ordinary skill in the art, when practicing the method of Richey et al., would have been expected to arrive at the optimum rate of calcium thiosulfate application by routine experimentation. In fact, Richey et al. disclose that the ozone quenching agent dose is a function of the ozone concentration in the water, and should be adjusted to reduce the dissolved ozone concentration without adding so much of the agent that the unoxidized agent would react with chlorine added downstream. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the present invention was made, to have applied calcium thiosulfate to the water in the amount recited in instant claim 11, depending on the concentration of dissolved ozone in the water being treated, absent a sufficient showing of unexpected results.

10. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsey Hoey whose telephone number is (703) 305-3934. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6:00 PM, and on alternate Fridays from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. David Simmons, can be reached at (703) 308-1972. The fax phone number for official after final faxes for this Group is (703)305-3599, for all other official faxes the number is (703)305-7718, and for unofficial faxes the number is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

  
Betsey M. Hoey  
November 16, 2000